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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,189	09/29/2003	Nicholas Bromhead	AND01 046	2660
7590 Patrick D. McPherson Suite 700 1667 K Street, N.W. Washington, DC 20006		07/02/2007	EXAMINER PEREZ, JULIO R	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 07/02/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/674,189	Applicant(s) BROMHEAD ET AL.	
	Examiner Julio R. Perez	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/29/07 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 2, 3, 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "said received message" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2617

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4, 6, 9, 17, 20-22, are rejected under 35 U.S.C. 103(a) as being unpatentable over Koorapaty et al. (hereinafter Koorapaty) (US 6,871,061) in view of Syrjarime (US006774842)

Regarding claims 1, 17, Koorapaty discloses a method of monitoring the location of a mobile terminal in a cellular communications network comprising: determining at a network entity when the mobile terminal enters any of a plurality of regions (col. 4, lines 23-34, teaches detecting where the mobile is positioned); repeatedly polling the mobile terminal (col. 4, lines 10-12, the position of the mobile device is repeatedly acquired); receiving signals from the mobile terminal in response to the polling (col. 3, lines 46-52, 61-67, signals, i.e., signal strengths, which reads on receiving signals, from the mobile are obtained); and selectively determining the location of the mobile terminal as a function of a measured characteristic of the received signals (col. 3, lines 46-52, 61-67; col. 6, lines 21-48, teach the mobile location being stated based on parameters, i.e., RSSI, obtained on the mobile terminal, signal strength, which reads on measured characteristic of received signals; further, the mobile will be selected to be positioned based on the characteristics of the data signals),

but is silent on defining a plurality of regions within a communications network.

Syrjarime teaches known location cells that are specified as cell range estimates where the mobile is located, the cells are comprised of cell coordinates, e.g., defined

regions or location areas within a communications network where the mobile is located (col. 7, lines 5-16).

It would have been obvious to one skilled in the art at the time of the invention to modify Koorapaty, such that defining the regions within a cellular communications network, to provide specified regions where the mobile terminal may be present and accurately determine the location of the terminal.

Regarding claim 4, the combination as applied above discloses wherein said regions are location areas (Koorapaty, col. 5, lines 42-49 teaches location services wherein the mobile roams around, i.e., location areas).

Regarding claims 6, 20, the combination as applied above discloses as applied above discloses wherein said cellular communications network is selected from any of a GSM network, a GSM-R network and a UMTS network (Koorapaty, col. 9, lines 18-30).

Regarding claim 9, the combination as applied above discloses sending a message to the mobile terminal as a function of the repeated polls (Koorapaty, col. 6, lines 49-52).

Regarding claims 22, 27, Koorapaty and Duncan as applied above discloses the measured characteristic is selected from the group consisting of time of arrival, angle of arrival, and signal strength (Koorapaty, col. 7, lines 13-34).

6. Claims 2-3, 16, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koorapaty and Syrjarime in view of Becher et al. (US 2001/0028641).

Regarding claims 2,18, Becher teaches a network entity is a CAMEL entity and said received message is a CAMEL (intelligent network) location update message [pars. 0054, 0058-0060].

Koorapaty, Syrjarime and Becher are combinable because they are from the same field of endeavor, that is, providing location of a mobile terminal. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Koorapaty and Syrjarime to include Becher. The motivation for this combination would have been to provide the whereabouts of the mobile terminal more accurately.

Regarding claims 3,16,19, the combination of Koorapaty and Becher discloses wherein said network entity is a visitor location register [Becher, page 3, pars. 0031, 0036, the HLR pertaining an intelligent network].

7. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koorapaty and Syrjarime in view of Graf et al. (US007031703B).

Regarding claim 5, the combination teaches claim 1, but is silent wherein repeatedly polling further comprises repeatedly polling the mobile device by a mobile location centre.

Graf teaches an MSC providing location of the mobile station within a service area (col. 4, lines 66-67-col. 5, lines 1-6, 24-35).

It would have been obvious to one skilled in the art at the time of the invention to modify the combination, such that repeatedly polling the mobile device by a mobile location centre, to provide the location of the mobile more accurately.

8. Claims 7, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koorapaty and Syrjarime in view of Beasley (US 6055426).

Regarding claims 7, 21, the combination teaches claim 1, but is silent on receiving a message from the network entity indicating when the mobile terminal leaves the region or is turned off within the region and then issuing a request to the polling device to stop polling the location of that mobile terminal.

Beasley teaches notifying a platform of the mobile unit being out of the service area (col. 2, lines 7-23).

It would have been obvious to one skilled in the art at the time of the invention to modify the combination, such that receiving a message from the network entity indicating when the mobile terminal leaves the region or is turned off within the region and then issuing a request to the polling device to stop polling the location of that mobile terminal, to provide means to prevent delivery of data transmission or other communications with the mobile unit.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 13, 23-26, 28, are rejected under 35 U.S.C. 102(e) as being anticipated by Koorapaty et al. (hereinafter Koorapaty), US Patent Number 6,871,061.

Regarding claims 13, 23, Koorapaty discloses an network entity configured to maintain information about all mobile terminals within a specified zone of a communications network, said entity comprising: pre-specified information about one or more locations areas within said zone within which it is required to track the location of mobile terminals (col. 4, lines 23-25, areas where the mobile is to be located are defined); and an output means configured to send a message to a location-based application if a mobile terminal enters any of the location areas (col. 6, lines 65-67-col. 7, lines 1-12, after location information about the mobile has been acquired, the information, in regards to the mobile position, is sent to the ground station (i.e., location-based application)), wherein the location-based application determines the location of the mobile terminal as a function of a measured characteristic of a signal from said mobile terminal provided in response to a repeated polling of said mobile terminal (col. 4, lines 10-64; col. 6, lines 20-64, measurements of signal strengths from the mobile station, i.e., characteristic of signals, reported repeatedly provide accurate location of the mobile device).

Regarding claims 24, 25, Koorapaty discloses as applied above discloses wherein said cellular communications network is selected from any of a GSM network, a GSM-R network and a UMTS network (col. 9, lines 18-30).

Regarding claims 26, 28, Koorapaty discloses the measured characteristic is selected from the group consisting of time of arrival, angle of arrival, and signal strength (col. 7, lines 13-34).

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koorapaty in view of Becher et al. (hereinafter Becher), US Pub. No. 2001/0028641.

What Koorapaty does not specifically disclose is an intelligent network entity comprising a visitor location register. However, Becher teaches this limitation (paragraphs 0031, 0036)

Koorapaty and Becher are combinable because they are from the same field of endeavor, hence, providing location of a mobile terminal. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Koorapaty with the teaching of Becher. The motivation for this combination would have been to provide means to more accurately determine the location of the terminal.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julio R. Perez whose telephone number is (571) 272-7846. The examiner can normally be reached on 10:30 - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William G. Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Julio R Perez
Examiner
Art Unit 2617

6/25/07

OR



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600